2: Barrett E-5 (no date) 1917 NT20 Washo NT20

The well watered mountains of the
western part of the Washo territory produce a flora characterized 137
by heavy forests of cedar, spruce, and several of the larger species 262
of pine, and in its extreme western part by the presence of the 177

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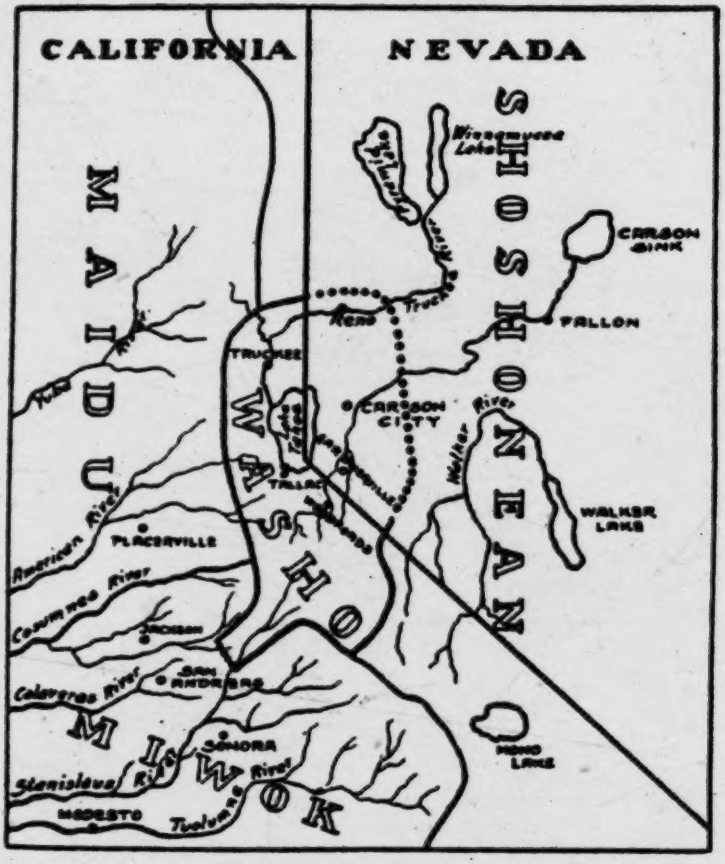

Map 1. Showing the Washo territory and that of surrounding tribes.

sequoia and the oak, whose acorns are used to some extent as food; thus introducing here a distinctly Californian element. 137 262 177

The fauna of the two sections presented, in primitive times, similar differences. That of the arid region was characterized 136 174

2: Barrett E-5 (no date) 1917 NT20 Washo NT20

chiefly by the rabbit and various other small mammals; that of the Sierra region by larger mammals, such as the mountain sheep, deer, and bear.

Even in the arid section of this area there were fairly large streams fed by the melting snows of the high Sierra, and fish of various kinds were abundant. In fact fishing was a highly important vocation, even of the Paiute living over in the region still farther to the east, especially about Pyramid, Winnamucca, and Walker lakes. In the higher mountain section of the Washo country, notably at Lake Tahoe, fishing was, perhaps, the most important phase of this culture. The heavy snows made these higher altitudes undesirable for winter residence, but the Indians spent much time there during the summer months, attracted especially by the abundance of lake trout.

Of the two environments of the Washo, that of the arid Great Basin rather predominated, which fact, combined with the facility of communication and the consequently more frequent association of the Washo with their eastern neighbors than with those to the west, produced a culture in which Great Basin features are somewhat in the ascendancy. However, there are many features of the Washo culture which are very similar to those of the Miwok and Maidu of the California area.

SOCIAL ORGANIZATION.

Since the coming of the whiteman and the consequent dispossession of the Indians, the social system of the Washo has been largely disrupted. The following outline of their social organization, therefore, depicts the aboriginal condition of the Washo, though at the present time no villages in the old sense remain, and chieftainship is largely nominal.

The social organization of the Washo is primarily based upon the family unit. The village community is the largest division and each village is entirely distinct from all the others. Apparently there is no approach to a tribal organization, though this exists among the tribes immediately to the east.

CHAPTER 38.

THE WASHO.

Affiliations, 569; habitat, 569; numbers, 570; culture, 571; basketry, 571; dress and implements, 572; buildings, 572; religion and society, 573.

AFFILIATIONS.

The Washo have been unduly neglected by students of the Indian. What little is on record concerning them makes it difficult to place them.

Their speech, which is rather easy to an English tongue and pleasant to the ear, is distinctive and very diverse from that of the Shoshonean Mono and Northern Paiute with whom they are in contact and association. Such investigation as has been made—and it has not gone very deep—points to the Washo language as being Hokan and therefore no longer to be regarded as an independent stock. Still the affiliation with other Hokan languages can not be close. The position of the Washo makes this comparative distinctness remarkable. For a detached and quasi-independent little group the Washo are on the wrong side of the Sierra. Diversity is the true Californian habit. The moment the Plateau is entered single dialects stretch for monotonous hundreds of miles, and the basic Shoshonean tongue continues without interruption across the Great Basin and even over the Rockies. Now the Washo are a Basin tribe. Their settlements were all on streams that flow eastward to be lost in the interior desert. Even as the artificial lines of statehood run they are as much a Nevadan as a Californian people. Their anomaly as a separate fragment is therefore in their location.

It is tempting to conjecture, accordingly, and especially on the basis of their probable Hokan kinship, that they are an ancient Californian tribe, which has gradually drifted, or been pressed, over the Sierra. But there are no concrete grounds other than speech to support such an assumption.

HABITAT.

The Washo territory is the upper and more fertile drainage of the Truckee and Carson Rivers—streams born in California mountains to perish in Nevada sinks. How far down they ranged on these

5:Kroeber E-5 (no date)1925 NT20 Washo NT20

two rivers has not been ascertained with accuracy. It seems to have been but a little below Reno and Carson City. Long Valley Creek, which drains northwestward into Honey Lake, a Californian stream, was also in their possession. West of the crest of the Sierra they had no settlements, but the Miwok acknowledged their hunting rights on the upper Stanislaus nearly as far down as the Calaveras Big Trees. They may have enjoyed similar privileges elsewhere. Where there are no winter villages, information is often conflicting: boundaries may have been in dispute, or amicably crossed. If the Washo hunted on the North Stanislaus they may have come down the Middle Fork also, or frequented the Calaveras, Cosumnes, or American. Sierra Valley has been assigned both to them and the northeastern Maidu. The deep snows prevented more than temporary occupation. Honey Lake, too, may have been more largely Washo than the map (Pl. 46) shows, or entirely forbidden to them.

Lake Tahoe is central to Washo territory, and was and is still resorted to in summer, but its shores are scarcely habitable in the season of snow.

The Washo call themselves Washiu or Wasiu. The names applied to them by their neighbors are unknown, except for northern Maidu Tsaisuma or Tsaisü. Northern Miwok Hisatok or Histoko means merely "easterners."

The Washo were at times in conflict with the adjacent Northern Paiute, whom they call Paleu, and by whom they are said to have been defeated about 1860.

NUMBERS.

There are the usual statements, some made as much as 50 years ago, about enormous decrease and degeneration or impending extinction; but actually the Washo seem to have suffered less diminution as a consequence of the invasion of our civilization than the vast majority of California Indians. Estimates of their population were: In 1859, 900; 1866, 500; 1892, 400; 1910, 300. The Federal census in this last year enumerated over 800, about one-third in California and two-thirds in Nevada, some three-fourths or more being full blood. As the Washo are distinctly separated from the "Paiutes" and the "California Diggers" in the local American consciousness, it is not likely that this figure involves any erroneous inclusions of consequence. Their lack of any reservation, and the semiadjustment of their life to civilized conditions, leading to a scattering habitation on the fringes of white settlements, have evidently caused a persistent underestimation of their numbers.

Their original strength may have been double what it is to-day; 1,500 or under seems a likely figure in view of the nature of their country, their solidarity, and their unity of speech.

[this plate has not been processed]
--Analyst

A few Northern Paiute and Shoshoni groups did make intensive use of small areas so that their population densities approached or even exceeded that of the Washo tribe. Steward (1938, 47-48) presents the Owens Valley Paiute (2.1 sq. mi. per person) and Shoshoni groups along the Humboldt River (3.3 to 5.2 sq. mi. per person) as examples of high population density for the Great Basin.

In the estimate given above, Kroeber was using a population of 1,000 for the Washo in an area of 6,200 km^2 (2,394 square miles). Earlier, Kroeber (1925, 944) had estimated a population of about 1,500 for the year A.D. 1770. This latter figure is probably closer to the Washo population in the middle 1800's. Furthermore, Washo territory was clearly larger than Kroeber's estimate. The Washo land claim case against the government in 1951 comprised a total of 9,872 square miles. This, in turn, appears to be an overstatement in terms of what is currently meant by aboriginal territory (cf., Indian Claims Commission 1959). The Washo had knowledge and some use of approximately 12,000 square miles in their "nuclear" and "peripheral lands". They made intensive use of less than 2,000 square miles, while their "nuclear" territory comprised about 4,000 square miles. Thus, population and territory figures suggest a density that is high for the Great Basin: 1,500 persons in 4,000 square miles or 2.7 square miles per person.

Physical Type

The published physical description of the Washo Indians consists of a few photographs and a series of anthropometric measurements made by Gifford (1926). These measurements were published in "Californian Anthropometry" along with several other samples. The accuracy of the description of any particular group presented in "Californian Anthropometry" is questionable on the grounds of the small sample sizes. For example, cephalic indices were listed for 48 groups, but 1/2 of these groups consisted of a sample of 8 or less with 10 groups represented by only one individual. The mean sample size for these 48 series with data on cephalic index is 16.3. In spite of its negative aspects, "Californian Anthropometry" is the only primary source on Washo anthropometry.

The physical types found by Gifford for the California Indians are listed below with the criteria that he used. Facial index (FI), nasal index (NI), and cephalic index (CI) should be read as 80 or lower (80-) and 80 or higher (80+). Stature (St) is given in centimeters so that 170 would be equivalent to 5 feet and 7 inches.

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Rabbit skins were also cut into strips and woven into warm robes. Conical houses were made of wooden poles and brush thatch for winter weather while a half-dome windbreak served for warm weather. 342

592
The household of a family and relatives in a single winter house was the basic socioeconomic unit of society. Each household worked and shared together in solving the problems of survival and fulfilling social and ritual obligations. The household continued to fish, hunt, and collect its food in a fairly uniform way year after year in the same sector of Washo territory. If the fishing was poor in one place, they moved to another stream. If the pinenuts failed, they went to the west and gathered acorns. And wherever they went, they hunted or gathered what was available: some tree grubs here, a lettuce-like vegetable there, and a squirrel or rabbit or bird at the next place. The procurement and preparation of food was clearly the most time consuming activity in Washo life. 22

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Men and women often worked together at the same tasks, but there was some division of labor by sex. Men hunted and except for basketry, were the craftsmen who made the clothing, houses, and hunting and fishing gear. Women gathered plant and insect foods, prepared and cooked them, made the baskets, and tended the children. A few individuals specialized to a degree [463] in becoming shamans, midwives, herbalists, or particularly adept in a craft.

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Sharing, as the economic basis of family life, was the very essence of Washo economy. Sharing found expression in the producing task groups that drew members from more than one household. It was through sharing that the vast majority of goods changed hands. Exchange, with a stronger demand for reciprocal equivalence than sharing, characterized the economic aspects of social rituals, as well as the more impersonal forms of distribution such as gambling, trade, and payments made for services rendered.

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Washo economy appears in a few ways to be distinctive in the Great Basin. The Washo ranged a particularly productive environment which allowed them [161] the highest population density in the Basin. The Washo may have had less [439] trade than the surrounding peoples because of several factors, language isolation being one. Pinenut groves were privately owned, a rare phenomenon [423] in the Basin. Washo techniques for gathering and storing pinenuts, in strips and the construction of great caches, is also perhaps unique in the Basin and [251] inadvertantly presented them with another unique phenomenon, overproduction.

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There are still broad gaps in our knowledge of Washo aboriginal life. The data are fairly complete on language and mythology, but the rest of Washo culture has been only sketched out in its major outlines. Most of this is [174] unrecoverable and only by careful interviewing, archeology, and scrutiny of historical documents can we hope to reconstruct a way of life that began to disappear over 100 years ago.

We need data on the intimate, day-to-day activities within the household and community. This could still be derived from life histories on several of the oldest living Washo people. The literature is full of broad generalizations. What we need and can collect for a few more years is something of what B. Malinowski called the "imponderabilia of actual life."

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9: d'Azevedo et al. E-4,5 (1952-1961) 1963 NT20 Washo NT20

A RECONSTRUCTION OF ABORIGINAL WASHO SOCIAL ORGANIZATION[1*]

by Stanley A. Freed

The reconstruction of aboriginal Washo social structure presented here is based upon the publications of earlier investigators and upon data that my wife and I collected in the course of about six months' field work in the summers of 1952, 1953, 1956 and the winter of 1956-57. The major sources on aboriginal Washo social organization are: Barrett (1917), Curtis (1926), Kroeber (1907; 1917), Lowie (1939), and Siskin (1941). Our field data consist principally of interviews with 70 informants who ranged in age from 10 to over 80. Genealogical data, kinship terminology, census material, and brief life histories were collected from all informants. The testimony of our older informants regarding aboriginal conditions and the earlier published reports almost always agree, and thereby make possible a reconstruction of aboriginal Washo social organization that is probably relatively sound. The changes in Washo social structure since aboriginal times will be mentioned here, but a discussion of the probable causes of these changes has been omitted because such an analysis has appeared in an earlier paper (Freed, 1960).

In addition to a description of kinship terminology, residence rules, marriage patterns and other customary categories of analysis of social organization, this paper will attempt to describe role behavior among kinsmen in aboriginal times. This description is based on data from role profile tests taken by 47 Washo in the winter of 1956-57, and therefore pertains to modern role behavior (Freed, 1960, 365-70). The degree to which these patterns of modern role behavior resemble those of aboriginal times cannot be determined with any certainty because the published sources contain virtually no information on role behavior; also, attempts to elicit statements of aboriginal role behavior from elderly informants were unproductive. However, it is possible to make a tentative estimate of the degree to which modern and aboriginal role behavior resemble each other on the basis of a general appraisal of Washo acculturation. The Washo are still a recognizable group; they speak their own language; and, in modified form, they practice a number of aboriginal culture patterns (Freed, 1960). For these reasons we can assume that role behavior among the modern Washo gives some indication of aboriginal role behavior.

Kinship Terminology

The kinship terminology of the aboriginal Washo may be established with relative confidence because the terminologies collected by Kroeber (1907; 1917) and Lowie (1939) not only agree closely with each other but also with

*Notes are at ends of papers.

THE PERSISTENCE OF ABORIGINAL CEREMONIES AMONG THE WASHO INDIANS[1]

by Stanley A. and Ruth S. Freed

In the 1950's the Washo were observing, in modified form, five of their six aboriginal ceremonies. These were the ceremonies at birth, girl's puberty, death, the shaman's curing rite and the annual pinenut dance. The dance and ceremonies before a war party set out and after its return apparently disappeared shortly after the beginning of permanent white settlement due to the suppression of warfare by whites.[2] Of the five surviving ceremonies, three were rites of passage regularly observed whenever circumstances made them appropriate: the ceremonies at birth, girl's puberty and death. These three ceremonies give every indication of surviving for the foreseeable future. The other two ceremonies, the pinenut dance and the shaman's curing rite, appear to be on the verge of extinction. The annual pinenut dance had already essentially disappeared by 1952, and the shaman's curing rite probably will have disappeared by the early 1960's. This paper will describe the five ceremonies that have survived into the 1950's and will discuss possible reasons why three seem capable of survival while two are on the point of disappearance.

The descriptions of aboriginal Washo ceremonies are reconstructions based on the testimony of our informants and on earlier published reports. Hank Pete claimed he was born in 1882; Bertha Holbrook said her year of birth was 1885. Nancy Emm did not give her age but she appeared to be as old as Holbrook. Mooney (1928, 20) considers 1845 as the end of the aboriginal period in the region; the first permanent white settlement was in 1851. This means that when our informants were children some Washo were still living who were familiar with the relatively undisturbed Washo culture. Hank Pete's grandmother was alive when he was a boy, and he apparently learned a good deal from her. The most useful sources on aboriginal Washo ceremonies are Curtis (1926), Lowie (1939), and Stewart (1941). Cartwright (1955) has described a modern girl's puberty dance; Freed and Freed (1963) have described the shaman's curing rite.

The Washo may have had an annual mourning ceremony but the evidence for its existence is scanty. Barrett (1917, 9) states "... there is an annual mourning ceremony, or 'cry,' accompanied by a big feast." He gives no further details. Curtis (1926, 97) reports "Annually there was a memorial ceremony which appears to have closely paralleled the California rite. Objects were burned while the people wailed, and a feast was provided by the chief. Effigies of the lamented dead are said to have been burned, as in

[1] [2] [footnotes appear on p. 39 -- Analyst]

9: d'Azevedo et al. E-4,5 (1952-1961) 1963 NT20 Washo NT20

A CONFIGURATION OF ABORIGINAL WASHO CULTURE[1/A]

by Stanley A. and Ruth S. Freed

Beliefs in supernatural power (wegelíyu) and in ghosts are two elements that occur in several patterns of aboriginal Washo culture. These two beliefs are prominent in culture patterns concerned with the etiology and cure of diseases; they also occur in war, social control, funerals, child rearing and hunting. Ghosts and supernatural power are usually associated with the psychological condition of fear. Because these culture elements are widely distributed among the patterns of Washo culture, they function as a unifying or integrating force. Such relationships among culture patterns arising from the presence of common elements Nadel calls "logical consistency" (Nadel, 1951, 258-65).

If a cultural configuration is defined as a statement of a cultural regularity, usually with accompanying psychological states taken into account, which serves to integrate many of the culture patterns of a society, then fear of supernatural power and ghosts is a configuration of Washo culture. Because the individual Washo can manipulate power, and to some extent ghosts, for either good or evil, the fear of supernatural power and ghosts is often a fear of people who are known to have, or suspected of having, power; therefore, the configuration, fear of supernatural power and ghosts, is often equivalent to a fear of people.

This paper will describe the characteristics of supernatural power and ghosts in Washo culture; it will analyze the functions of these two elements in all culture patterns where they occur, thereby showing that they give logical consistency to Washo culture; and it will indicate how recognition of the configuration, fear of supernatural power and ghosts, helps to explain features of Washo behavior the reasons for which are not otherwise easily perceived.

The Washo culture here described is a reconstruction of aboriginal conditions. It is based primarily upon the statements of elderly people whom we consider reliable informants. Their testimony is usually internally consistent; they generally agree with each other, and their descriptions of Washo culture patterns closely resemble those of neighboring tribes which are also thought to be aboriginal (see especially Park, 1938, and Whiting, 1950). Bertha Holbrook and Henry Rupert claim to have been born in 1885 and Hank Pete in 1882; Nancy Emm did not give her age but looked as old as Holbrook. Mooney (1928, 20) considers 1845 to mark the end of the aboriginal period in the region. This means that when Emm, Holbrook, Rupert, and Pete were children, some Washo who were still living were familiar with the relatively undisturbed Washo culture.

1/ [footnote appears on p. 54 --Analyst]

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171 the consequence of such restrictions is to create aggressive tendencies that must be canalized in some culturally approved manner so that psychological and intrasocietal conflicts are minimized.

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154 Nadel takes issue with the latter point. He argues that it is a false
171 assumption "that witchcraft beliefs 'canalize' hostility or 'deflect' hostile
121 impulses into socially relatively harmless channels" (1952, 28). Presenting
114 evidence from four societies in Africa, he points out that belief in sorcerers is "conspicuously related to specific anxieties," (1952, 28) and therefore it only accentuates concrete hostilities. Though Kluckhohn, for one, would probably not have denied the "costs" of witchcraft, he did feel these were frequently stated without recognizing the potential euphoric effects of beliefs in witchcraft for the social system as a whole (1944, 67-8).

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174 The Washo provided an opportunity for an exploration of this differ-
154 ence in opinion. Since the Washo belief in the prevalence of witches changed
[178] drastically over a period of approximately 15 years, we were able to ask the question of whether the elimination of witches as objects of aggression would help solidify the society, as Nadel suggested, or would create a need for new opportunities for releasing aggressions.

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871 In addition to addressing ourselves to the function of witchcraft in
754 Washo society, we were also concerned with education, the intervening vari-
154 able between frustration and the acceptable objects of aggression. Of course, members of a society do not usually consciously employ the educational process for this purpose, and the presence of sorcerers rather than some other kind of scapegoat can only be accounted for by particular historical developments in Washo culture, but the transmission of knowledge about certain phenomena will obviously affect the possibility of their being manipulated as objects of aggression.

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756 The Washo were a fairly typical Great Basin group, according to Edgar
[683] Siskin, who visited them in the late 1930's, except for their fear of and belief in the power of shamans, which he thought achieved "an unsurpassed eminence in the Washo" (1941, 125). Lowie, after briefly visiting the Washo in 1927, observed that a correlation of shamanistic power with evil magic was prevalent in their world-view, and he relates several instances in which shamans were supposed to have been responsible for deaths. When this would happen four or five men would finally agree to murder the shaman. One of Lowie's informants believed one of the shamans, or Indian doctors, as the Washo call them, to have been "mad." "He tries to poison us all, it seems to us. That's the way he used to do in the old days. A Washo doctor always tried to injure his own people in the old days" (Lowie, 1939, 320).

The Washo speak a Hokan language; their neighbors to the east, the Northern Paiute, speak a Utaztekan language; the Maidu and Miwok to the west are Penutian speakers. The Hokan languages are widely scattered from California through Mexico and into Central America, and are considered to be among the oldest languages in California. The lexicostatistics of Hokan indicate that Washo separated from Yana, only 60 mi. northwest of the Washo, 5000 years ago. 197 [174]

Kroeber (1955) wrote that "It is evident that the geographical proximity of Yana and Washo is a secondary and recent affair, and that they have been separated not only for a long period but probably, by a considerable geographical interval for much of that time. Washo in fact proves to have been split off from every other computed Hokan language for 45C or more." 174

Lamb (1958) shows linguistic evidence for the presence of the Proto-Utaztekan people around the Arizona-Sonora, Mexico, region 5000 years ago. After several splits and migrations within the language family there was a general movement north and eastward by the Shoshonean division about 1000 years ago, a movement that was still in progress 500 years ago. In the 1800's the Shoshoneans were the principal language group present in the Great Basin. Linguistic data suggest, therefore, a pattern of Shoshonean contacts over a long period of time which is important in any interpretation of Washo prehistory.

In contrast to the linguistic differences, the Washo appear to be closely related racially to the surrounding tribes. At least, according to the anthropometric study made by Gifford in 1926, the Washo are included with Northern Paiute, Miwok, and many other groups in his "narrow-nosed subtype" of the "Californian type." This similarity is also suggested by the work on Great Basin population by Kennedy (1959). 144

The Washo are culturally, as well as geographically, between eastern California and Great Basin tribes. Barrett (1917) pointed out Washo relationships on both sides of the Sierra Nevada with Californian affinities indicated by the conical house, bedrock mortar, soaproot brush, coiled basketry with descriptively named geometric patterns, and acorns as a food. Heizer and Elsasser (1953, 4) added language affiliation, looped withe hot rock lifter, and flat mush stirring paddle to this list. 171 [197]

Heizer and Elsasser (1953, 4) state that "affiliations of Washo culture with that of the Shoshonean tribes to the east in the Great Basin proper are: long net for catching rabbits by driving techniques; special 'boss' for rabbit and deer hunt; rabbitskin blanket; heavy dependence for food on nuts of piñon (Pinus monophylla) with the complex of implements and activities used to

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4. Although similar, Martis type artifacts are distinct from all other surrounding artifact assemblages.

5. Clear evidence for a culture that is transitional between Martis and Kings Beach is lacking.

The Washo, the earlier Kings Beach complex people, and the still older Martis complex people solved the problems of survival in quite similar ways. We suspect that they are the same people at different periods of time. Still, caution must be exercised in attempting to correlate archeological manifestations with ethnographic groups in the area.

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174 The present writer tested the hypothesis that the Washo of the ethnographic present were closer to the archeologically known Lovelock culture than the Northern Paiute or Achomawi. This was done by comparing a list of 64 traits of Lovelock culture prepared by Grosscup (1954, 22-23) with the ethnographic trait lists by Stewart (1941) for Washo, Achomawi, and Tasigat Northern Paiute. This comparison showed that the three ethnographically known cultures were almost exactly equal in their similarity to Lovelock culture. It also showed that the material culture for the west central Great Basin was so similar that considerable caution is necessary in assigning a complex, a site, or a component to any particular historic tribe. In view of these facts it appears that extensive excavation, particularly of known Washo sites, will be necessary to confidently ascribe the Kings Beach complex to the prehistoric Washo.

Notes

122 1. A National Science Foundation Graduate Fellowship made it possible for the author to devote time to this study. Gordon L. Grosscup encouraged and aided this research with his criticism.

102
172 2. The map facing the title page represents the central portion of historic Washo territory. It was drawn to include archeological sites in Washo territory on which the author had information.

Sites from the survey by Freed are numbered 1 through 31. The University of California Archaeological Survey sites are designated by county

9: d'Azevedo et al. E-4,5 (1952-1961) 1963 NT20 Washo NT20 ●
Northern Paiute NR13

History and Ecology

It is significant that the instigators of hostile action against the white man were not Paiutes, although these peoples appear to have experienced a rather extreme deprivation at the time. The leaders of the first war raids were Shoshoni and Bannock, or Paiute offspring of intertribal matings. The reason for the presence of these sojourners is unclear but the subsequent history of intertribal relationships in the Basin reveals, in addition to fighting, a great deal of visiting, intermarriage and trade among Basin groups, particularly those speaking Shoshonean languages. It is my contention that these relationships were based in a previous ecological commonality shared by the peoples of the northern Basin and Plateau, rather than on linguistic ties.

N 648
N [563]
N W [182]

The hypothesis of a common ecology is based on the earlier distribution of bison in the Great Basin, particularly in northern Nevada. Since much of the argument of this paper is based upon the assumption that buffalo did at one time exist here it would be advisable to examine the evidence for such distribution.

N W 136 182

Archeological and ethnographic studies have produced, incidentally to their major concerns, some evidence for the relatively recent presence of bison in northeastern California (Riddell, 1952) and northwestern Utah (Steward, 1937) but no indisputable evidence for their existence in Nevada. However, the evidence supplied by zoologists and natural historians seems to demonstrate that the buffalo did at one time, perhaps until as late as the first quarter of the last century, exist in Nevada.

N W 114 136 174 182 ●

Allen (1877) cites evidence of the recent presence of the bison from northern Utah to northern California and states unequivocally that the probable range of the bison as late as the 1820's extended to the Sierra Nevada. After an ambitious but admittedly incomplete search of historic material as well as a voluminous correspondence with missionaries, government officials, pioneer settlers, and others, he argues that the area between 40° N latitude and 39° N latitude marked the southern limit of the westward range of the bison. This line passes through the northern tip of what seems to have been Washo territory. However, at that latitude Washo occupations appear to have been in the higher elevations not normally occupied by bison. Allen's arguments are supported by Hornaday (1887), Garretson (1938) and Seton (1928, 646-7). Steward presents a map (1938, 14) showing a southern limit for buffalo almost to Humboldt Sink in A. D. 1500.

Hall (1946, 644) lists the bison among those species that might possibly have occurred in Nevada but for which satisfactory evidence is lacking.

N W 136 174 182 114

Zoological evidence tends to corroborate such secondary evidence as geographic locations with "buffalo" names and the traditions reported by Indian informants (Steward, 1938, 14).

Roe (1951, 282) felt the evidence did not justify establishing the western range of the bison in California. However, it would seem his caution is no longer called for in view of Riddell's information. Haines (1940) argues that the bison was not present in California and far western Nevada, but in light of later evidence and because of the limitations of his own argument it seems justifiable to discount his position. Haines accepted only historic documentation and discounted the opinions of zoologists and naturalists as well as some admittedly scanty but nonetheless real ethnographic suggestions. Having found no documentation, he was then forced to explain away Indian tradition and the existence of bison skulls. This he did with two separate and contrived suppositions (Haines, 1940, 397-8). Not only does he convert negative evidence into positive evidence, he attempts to explain away existing positive evidence in order to support assumptions based on negative evidence. Considering the nature of the evidence available it would seem that the only truly valid argument against bison's existing in the area would be one put forth by a biologist that it was impossible on ecological grounds for bison to have existed there. To my knowledge no such argument has been advanced. Thus it would seem, after an examination of the existing positive evidence, drawn from history, zoology, archeology and ethnography, that it was highly probable that the bison ranged from northwestern Utah to northeastern California down to 40° N latitude in comparatively recent times.

N 224 182

If we add the bison to the ecological picture previously painted for the Paiute we can postulate a far more rewarding subsistence level than was known in post-Caucasian times. The pursuit of buffalo, and the common patterns of gathering suggest that the relationships of the Shoshonean-speaking peoples were closely connected to their common ecology. However, by perhaps 1800 or shortly afterward the bison had disappeared from Nevada except possibly for small groups. This disappearance created an area of ecological imbalance in the southern portion of what had been the bison range. The Paiutes of this area were forced to seek alternatives to the buffalo and were probably oriented in the direction the buffalo had retreated. This may explain in part why the numerically inferior Washo were able to maintain themselves surrounded by the Paiute. The points of friction in the Pine Nut Mountains seem to be the only evidence of Paiute attempts to encroach on Washo subsistence save for occasional hunting and fishing forays into the Sierras.

N W [218]

N 231 177

The introduction of the horse into the Basin in the late 18th century, through the agency of Comanche-Shoshoni trade (Ewers, 1954, 11) gave the